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EXAMINER

LETT, THOMAS J

ART UNIT PAPER NUMBER

2626

DATE MAILED: 05/19/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,350

Applicant(s)

BHOGAL ET AL.

Examiner

Thomas J. Lett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nomura et al (US Patent 5,327,526).

With respect to claim 13, Nomura et al discloses that the print job manager 5 generates a queue identifier of the accepted print job in accordance with the control data 100 and places the queue identifier at a selected position in a column (col 4, lines 10-14), which reads on receiving a priority for a network print job; and sending the network print job and the priority to a network printing queue.

With respect to claim 14, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on the priority settings are entered by a network administrator.

With respect to claim 15, Nomura et al disclose that in the print job control system of this invention as shown in FIG. 4, the printing order checker 7 in the print job manager 5 sets a printing order in response to the designation by the sort option designator 4, and the printing order manipulator 8 changes this printing order in accordance with the directions given by the operator via the printing order changer 9, and the resulting change in order is finalized as a change in the positions of queue identifiers on the print queue table 6 (col 4, lines 59-67), which

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reads on receiving changes to the priority settings, according to changing circumstances; and sending the changes to the priority settings to the print queue.

With respect to claim 16, Nomura et al disclose that the printing order manipulator 8 changes this printing order in accordance with the directions given by the operator via the printing order changer 9 (col 4, lines 62-65), which reads on wherein the changes to the priority settings are made by a user.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US Patent 5,327,526) in view of Yoshida et al (US Patent 6,130,757). Nomura et al discloses a print job control system that is linked to a local area network (LAN) or other communications information networks for efficient processing of print requests generated from a plurality of workstations (col 1, lines 11-15), which reads on entering priority settings for network print jobs;

the print job manager 5 generates a queue identifier of the accepted print job in accordance with the control data 100 and places the queue identifier at a selected position in a column (col 4, lines 10-14), which reads on receiving a new print job and an associated priority setting into a network printing queue; and

as shown in FIG. 6, the print job manager 5 has a printing order checker 7 which checks the printing order in accordance with the sort option (col 5, lines 65-68), which reads on

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comparing the priority setting of the new print job to a priority of other print jobs in the network printing queue. Nomura et al does not disclose expressly allowing the new print job to begin printing without delay if it has the highest priority in the network printing queue. Yoshida et al discloses that the priorities are automatically assigned to the jobs each time a job is requested, and a job having the highest priority is executed immediately (col 3, lines 8-10). Nomura et al and Yoshida et al are analogous art because they are from the similar problem solving area of interrupting print jobs. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of interrupting a print job. The motivation for doing so would be to expedite a print job in a queue.

With respect to claim 2, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on the priority settings are entered by a network administrator.

With respect to claim 3, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on the priority settings are entered by a network user.

With respect to claim 4, Nomura et al does not disclose postponing the new print job until higher priority print jobs in the network printing queue have finished printing. Yoshida et al disclose priorities are automatically assigned to the jobs each time a job is requested, and a job having the highest priority is executed immediately (col 3, lines 8-10). Nomura et al and Yoshida et al are analogous art because they are from the similar problem solving area of managing priority of print jobs. At the time of the invention, it would have been obvious to a

person of ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of handling print job priorities. The motivation for doing so would be to manage a print job in a queue.

With respect to claim 5, Nomura et al does not disclose suspending a print job that is currently printing if the new print job has a higher priority; printing the new print job in full; and resuming the suspended print job. Yoshida et al disclose that it is possible in this embodiment of the present invention to automatically execute a higher-priority interrupt job without pressing the interrupt key. It is also possible in this embodiment of the present invention to automatically resume suspended jobs based on the priorities. Nomura et al and Yoshida et al are analogous art because they are from the similar problem solving area of managing priority of print jobs. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of handling print job priorities. The motivation for doing so would be to resume an interrupted print job.

3. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US Patent 5,327,526) in view of Yoshida et al (US Patent 6,130,757) as applied to claim 5 above, and further in view of Guerrero et al (US Patent 6,227,531 B1). Nomura et al and Yoshida et al do not disclose using different colored sheets to separate different print jobs. Guerrero et al disclose the job separation pages comprise banner pages having different sized, colored and/or indicia-marked single-page jobs that are inserted between adjacent print jobs in order to visually and/or tactilely identify such jobs (col 7, lines 58-62). Nomura et al, Yoshida et al and Guerrero et al are analogous art because they are from the similar problem solving area of managing print jobs. At the time of the invention, it would have been obvious to a person of

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ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of separating print jobs in a queue. The motivation for doing so would be to easily identify print jobs in a stack.

With respect to claim 7, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on the priority settings may be changed, according to changing circumstances.

With respect to claim 8, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on changes to the priority settings are entered by a network administrator.

With respect to claim 9, Nomura et al disclose that the jobs are arranged in the order determined by the sort option designator 4 or by the operator's designation (col 3, lines 43-44), which reads on changes to the priority setting are entered by a network user.

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US Patent 5,327,526) in view of Yoshida et al (US Patent 6,130,757) as applied to claim 1 above, and further in view of Reilly (US Patent 5,787,237 A).

With respect to claim 10, Nomura et al and Yoshida et al do not disclose providing a graphical user interface for displaying the estimated time for completing a print job. Reilly discloses that for this print job request call, the parameters stored in the print queue 82 include job information job name, estimated time to print (col 8, lines 14-16). All of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀ . . . n connected to the network at any time (col 8, lines 29-33). Nomura et al, Yoshida et al, and Reilly are analogous art because they are from the

similar problem solving area of viewing print job completion time. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of viewing estimated time of completion of print jobs in a queue. The motivation for doing so would be to enable users to see completion time of a print job.

With respect to claim 11, Nomura et al and Yoshida et al do not disclose sending prompts to users at set time intervals updating the estimated time for completing a print job. Reilly discloses that all of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀..._n connected to the network at any time (col 8, lines 31-33). Nomura et al, Yoshida et al, and Reilly are analogous art because they are from the similar problem solving area of updating users of print job status. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Yoshida et al to Nomura et al in order to obtain a method capable of updating users of completion time of a print job. The motivation for doing so would be to prevent unnecessary trips to the printer to retrieve a print job.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US Patent 5,327,526) in view of Yoshida et al (US Patent 6,130,757) as applied to claim 1 above, and further in view of Salgado (US Patent 6,504,621). Nomura et al and Yoshida et al do not disclose receiving a maximum time limit for postponing a print job, regardless of its priority. Salgado discloses that the calculation of the number times a job has been interrupted is a summation of all the times other jobs have interrupted the job, e.g., a Copy Job has been interrupted at different times by a Fax job, and four different Print jobs, the MAX # of interrupts

was set to 4, hence the MAX # of interrupts setting has been exceeded (col 14, lines 41-46).

Nomura et al, Yoshida et al, and Salgado are analogous art because they are from the similar problem solving area of progressing a low priority print job that may be excessively postponed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Salgado to Nomura et al and Yoshida et al in order to obtain a method capable of processing a low priority. The motivation for doing so would be to allow a lower priority print job to progress toward being printed.

6. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US Patent 5,327,526) in view of Reilly (US Patent 5,787,237 A).

With respect to claim 17, Nomura et al discloses that the print job manager 5 generates a queue identifier of the accepted print job in accordance with the control data 100 and places the queue identifier at a selected position in a column (col 4, lines 10-14). Nomura et al does not disclose receiving the estimated time for completing a print job; and displaying the estimated time for completing a print job to a user.

Reilly discloses that for this print job request call, the parameters stored in the print queue 82 include job information job name, estimated time to print (col 8, lines 14-16). All of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀..._n connected to the network at any time (col 8, lines 29-33). Nomura et al and Reilly are analogous art because they are from the similar problem solving area of viewing print job completion time. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Reilly to Nomura et al in order to obtain a method capable of viewing estimated time of completion of

print jobs in a queue. The motivation for doing so would be to enable users to see completion time of a print job.

With respect to claim 18, Nomura et al does not disclose receiving a maximum time limit for postponing a print job, regardless of its priority; and sending the maximum time limit to the printing queue. Reilly discloses that all of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀..._n connected to the network at any time (col 8, lines 31-33). Nomura et al and Reilly are analogous art because they are from the similar problem solving area of updating users of print job status. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Reilly to Nomura et al in order to obtain a method capable of updating users of completion time of a print job. The motivation for doing so would be to prevent unnecessary trips to the printer to retrieve a print job.

With respect to claim 19, Nomura et al does not disclose displaying the estimated time for completing a print job is by means of a graphical user interface. Reilly discloses that for this print job request call, the parameters stored in the print queue 82 include job information job name, estimated time to print (col 8, lines 14-16). All of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀..._n connected to the network at any time (col 8, lines 29-33). Nomura et al and Reilly are analogous art because they are from the similar problem solving area of viewing print job completion time. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Reilly to Nomura et al in order to obtain a

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method capable of viewing estimated time of completion of print jobs in a queue. The motivation for doing so would be to enable users to see completion time of a print job.

With respect to claim 20, Nomura et al does not disclose receiving prompts at set time intervals updating the estimated time for completing a print job. Reilly discloses that all of the information associated with the print job request call and stored in the print queue 82 may be accessed and displayed by any of the host computers 400₀ . . . n connected to the network at any time (col 8, lines 31-33). Nomura et al and Reilly are analogous art because they are from the similar problem solving area of updating users of print job status. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the feature of Reilly to Nomura et al in order to obtain a method capable of updating users of completion time of a print job. The motivation for doing so would be to prevent unnecessary trips to the printer to retrieve a print job.

Claim 21 is a computer program product claim and is rejected for the same reason as that of claim 1.

Claim 22 is a computer program product claim and is rejected for the same reason as that of claim 2.

Claim 23 is a computer program product claim and is rejected for the same reason as that of claim 3.

Claim 24 is a computer program product claim and is rejected for the same reason as that of claim 4.

Claim 25 is a computer program product claim and is rejected for the same reason as that of claim 7.

Claim 26 is a data processing system claim and is rejected for the same reason as that of claim 1.

Claim 27 is a data processing system claim and is rejected for the same reason as that of claim 2.

Claim 28 is a data processing system claim and is rejected for the same reason as that of claim 3.

Claim 29 is a data processing system claim and is rejected for the same reason as that of claim 4.

Claim 30 is a data processing system claim and is rejected for the same reason as that of claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is 703-305-8733. The examiner can normally be reached on 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

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or Faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to:

Crystal Park II

2121 Crystal Drive

Arlington, VA

Sixth Floor (Receptionist).

TJL

(TJL)

KA Williams
KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER